

# Claims

[c1] We claim as our invention:

1. A golf club head comprising:

a face component composed of a metal material, the face component having a striking plate portion and a return portion, the return portion including at least an upper lateral section and a lower lateral section with a sole extension, the striking plate portion having a thickness in the range of 0.010 inch to 0.250 inch, the return portion having a thickness in the range of 0.010 inch to 0.250 inch, the return portion extending at least 0.25 inch from a perimeter of the striking plate portion; and an aft-body composed of a non-metal material, the aft-body having a crown portion and a sole portion, the aft-body attached to the return portion of the face component;

wherein the golf club head has a coefficient of restitution of 0.80 to 0.94.

[c2] 2. The golf club head according to claim 1 wherein the striking plate portion has a thickness in the range of 0.055 inch to 0.125 inch.

[c3] 3. The golf club head according to claim 1 wherein the

aft-body is composed of a plurality of plies of pre-preg material.

- [c4] 4. The golf club head according to claim 1 wherein the striking plate portion has an aspect ratio no greater than 1.7.
- [c5] 5. The golf club head according to claim 1 wherein the striking plate portion has concentric regions of varying thickness with the thickest region in about the center.
- [c6] 6. The golf club head according to claim 1 wherein the golf club head has a volume in the range of 290 cubic centimeters to 600 cubic centimeters.
- [c7] 7. The golf club head according to claim 1 wherein the moment of inertia about the Izz axis of the golf club head is greater than 3000 grams-centimeter squared.
- [c8] 8. The golf club head according to claim 1 wherein the face component is composed of a metal material selected from the group consisting of titanium alloy, amorphous metal, stainless steel and maraging steel.
- [c9] 9. A golf club head comprising:  
a face component composed of a metal material, the face component having a striking plate portion and a return portion, the return portion including at least an up-

per lateral section and a lower lateral section with a sole extension, the striking plate portion having a thickness in the range of 0.010 inch to 0.250 inch, the return portion having a thickness in the range of 0.010 inch to 0.250 inch, the upper lateral section of the return portion extending a distance in the range of 0.25 inch to 1.5 inches from a perimeter of the striking plate portion, and the sole extension extending in the range of 0.05 inch to 3.0 inches from an edge of the return portion; and an aft-body composed of a non-metal material, the aft-body having a crown portion and a sole portion, the aft-body attached to the return portion of the face component, the aft-body having a thickness in the range of 0.015 inch to 0.100 inch; wherein the moment of inertia about the  $I_{zz}$  axis through the center of gravity is greater than 3000 grams-centimeter squared, and the moment of inertia about the  $I_{yy}$  axis through the center of gravity is greater than 1900 grams-centimeter squared.

- [c10] 10. A golf club head comprising:  
a face component composed of a metal material, the face component having a striking plate portion and a return portion, the striking plate portion having a thickness in the range of 0.010 inch to 0.250 inch, the return portion extending at least 0.25 inch from a perimeter of

the striking plate portion; and  
an aft-body composed of a non-metal material, the aft-body having a crown portion and a sole portion, the aft-body attached to the return portion of the face component;

wherein the golf club head has a volume ranging from 350 cubic centimeters to 525 cubic centimeters, a moment of inertia about the  $I_{zz}$  axis through the center of gravity of greater than 3000 grams-centimeter squared, and a moment of inertia about the  $I_{yy}$  axis through the center of gravity of greater than 1900 grams-centimeter squared.

- [c11] 11. A golf club head comprising:  
a face component composed of a titanium alloy material and comprising a return portion and a striking plate portion, the striking plate portion having concentric regions of varying thickness with the thickest region about the center of the striking plate portion; and  
an aft-body composed of a non-metal material and having a thickness in the range of 0.010 inch to 0.100 inch, the aft-body comprising crown portion, a sole portion, and an inward recessed portion, the return portion overlapping and being attached to the inward recessed portion,  
wherein the golf club head has a moment of inertia

about the  $I_{zz}$  axis through the center of gravity of greater than 3000 grams–centimeter squared, and a moment of inertia about the  $I_{yy}$  axis through the center of gravity of greater than 1900 grams–centimeter squared.

- [c12] 12. The golf club head according to claim 11 wherein the crown portion and the sole portion of the aft–body and the return portion of the face component define a gap, the gap also defined by an exterior surface of the inward recessed portion, the gap having a distance from an edge of the return portion to an exposed edge of the aft–body in the range of 0.02 inch to 0.09 inch.